

In the Specification

Please add the following abstract after line 66 on column 30.

Abstract

An apparatus for performing assays includes an axially rotatable substrate including a plurality of layers of a semi-conductor material and numerous radially-arrayed reaction sites. The apparatus further includes a rotary stepper motor which rotates the substrate at an adjustable and substantially continuous speed and controls the rotation of the substrate by adjusting the speed and a direction of rotation. In addition, the apparatus includes a dual function head which has a fluid dispenser that has a fluid dispenser outlet and delivers a fluid to a reaction site and also has a readout device that has a sensor which receives an identifying signal from the reaction site on the substrate or scans the substrate to read identifying marks at the reaction site. Moreover, the apparatus may be aligned by a computer having a memory for storing a start location for the dispenser outlet on the substrate and additional electronics. The computer provides movement signals to the rotary stepper motor and a linear stepper motor on which the dispenser outlet is mounted, whereby the motors align the dual function head over the substrate, such that the dispenser outlet is aligned over the reaction site.